WHAT IS CLAIMED IS:

1. An image processing apparatus for processing input
pixel data and for outputting the processed input pixel data
as output pixel data, comprising:

input reliability calculation means for calculating an
input reliability indicating the reliability of the input
pixel data;

output reliability calculation means for calculating an
output reliability indicating the reliability of the output
pixel data;

motion-amount detecting means for detecting the motion
amount of the input pixel data;

compensation means for compensating the output
reliability according to the motion amount; and

processing means for processing the input pixel data
according to the input reliability and the compensated
output reliability, and for outputting the output pixel data.

2. An image processing apparatus according to Claim 1,
wherein said motion-amount detecting means detects the
motion amount of the input pixel data according to the
difference between an image block formed of a predetermined
number of pixels disposed around the input pixel data and
including it, and another image block disposed at the same

position as the image block on an adjacent screen.

3. An image processing apparatus according to Claim 2, wherein said motion-amount detecting means extracts only pixels having the differences from the input pixel data equal to or less than a predetermined threshold when extracting pixels disposed around the input pixel data and including it.

4. An image processing apparatus according to Claim 2, wherein said motion-amount detecting means detects as the motion amount the average of the differences of pixel data between an image block formed of a predetermined number of pixels disposed around the input pixel data and including it, and another image block disposed at the same position as the image block on an adjacent screen.

5. An image processing apparatus according to Claim 1, further comprising noise-amount estimate means for estimating the amount of noise included in the input pixel data,

wherein said input reliability calculation means calculates the input reliability according to the noise amount.

6.   An image processing apparatus according to Claim 5,
wherein said noise-amount estimate means comprising:

variance calculation means for calculating the variance
of pixel data in a local area including the input pixel data
for each input pixel data constituting one screen;

histogram generating means for generating the histogram
of the variance calculated for each input pixel data; and

noise-amount calculation means for obtaining the amount
of noise included in the input pixel data according to the
histogram.

7.   An image processing apparatus according to Claim 6,
wherein the noise-amount calculation means obtains the peak
value of the histogram and calculates the value
corresponding to the variance having the peak value as the
amount of noise.

8.   An image processing apparatus according to Claim 1,
further comprising input-pixel-data storage means for
storing only a predetermined number of the input pixel data
input time-sequentially.

9.   An image processing apparatus according to Claim 8,
wherein said input reliability calculation means calculates
the variance of the predetermined number of data stored by

the input-pixel-data storage means, and evaluates the input pixel data currently input, according to the variance.

10.   An image processing apparatus according to Claim 8, wherein said input reliability calculation means calculates the average of the predetermined number of the input pixel data stored by the input-pixel-data storage means, and evaluates the input pixel data currently input, according to the error of each input pixel data against the average.

11.   An image processing apparatus according to Claim 8, wherein said input reliability calculation means calculates the variance and the average of the predetermined number of the input pixel data stored by the input-pixel-data storage means, obtains the error of each data against the average, and evaluates the data currently input, according the variance and the error.

12.   An image processing apparatus according to Claim 1, wherein said output reliability calculation means calculates the reliability of the current output pixel data according to the sum of the reliability of the input pixel data and the reliability of the output pixel data.

13.   An image processing apparatus according to Claim 1,

further comprising output-pixel-data storage means for storing the output pixel data,

wherein said processing means adds the past output pixel data stored by the output-pixel-data storage means to the current input pixel data to obtain the output pixel data corresponding to the current input pixel data.

14. An image processing apparatus according to Claim 1, further comprising weight-coefficient calculation means for obtaining a predetermined weight coefficient according to the input reliability and the output reliability,

wherein said processing means adds the current input pixel data to the output pixel data in the previous screen, corresponding to the input pixel data, with a weight according to the weight coefficient to obtain the current output pixel data.

15. A noise-amount estimate apparatus for estimating the amount of noise included in pixel data, comprising:

variance calculation means for processing in units of a predetermined number of pixels and for calculating the variance of a plurality of pixel data in a local area including each pixel data;

histogram generating means for generating the histogram of the variance calculated for each pixel data, in units of

the predetermined number of pixels; and

noise-amount calculation means for obtaining the amount
of noise included in the pixel data according to the
histogram, in units of the predetermined number of pixels.

16. A noise-amount estimate apparatus according to
Claim 15, wherein said noise-amount calculation means
obtains the peak value of the histogram to calculate the
value corresponding to the variance having the peak value as
the amount of noise.

17. An image processing method for processing input
pixel data and for outputting the processed input pixel data
as output pixel data, comprising:

a step of calculating an input reliability indicating
the reliability of the input pixel data;

a step of calculating an output reliability indicating
the reliability of the output pixel data;

a step of detecting the motion amount of the input
pixel data;

a step of compensating the output reliability according
to the motion amount; and

a step of processing the input pixel data according to
the input reliability and the compensated output reliability,
and of outputting the output pixel data.

18. A noise-amount estimate method for estimating the
amount of noise included in pixel data, comprising:

a step of processing in units of a predetermined number
of pixels and of calculating the variance of a plurality of
pixel data in a local area including each pixel data;

a step of generating the histogram of the variance
calculated for each pixel data, in units of the
predetermined number of pixels; and

a step of obtaining the amount of noise included in the
pixel data according to the histogram, in units of the
predetermined number of pixels.

19. A storage medium for storing a computer-
controllable program for processing input pixel data and for
outputting the processed input pixel data as output pixel
data, the program comprising:

a step of calculating an input reliability indicating
the reliability of the input pixel data;

a step of calculating an output reliability indicating
the reliability of the output pixel data;

a step of detecting the motion amount of the input
pixel data;

a step of compensating the output reliability according
to the motion amount; and

a step of processing the input pixel data according to the input reliability and the compensated output reliability, and of outputting the output pixel data.

20. A storage medium for storing a computer-controllable program for estimating the amount of noise included in pixel data, the program comprising:

a step of processing in units of a predetermined number of pixels and of calculating the variance of a plurality of pixel data in a local area including each pixel data;

a step of generating the histogram of the variance calculated for each pixel data, in units of the predetermined number of pixels; and

a step of obtaining the amount of noise included in the pixel data according to the histogram, in units of the predetermined number of pixels.